

We claim:

1. A method for acquiring a signal in a spread-spectrum communications system, said method comprising:
  - (a) locating a sequence within a secondary synchronization sub-channel of a received spread-spectrum signal;
  - (b) filtering a first set of taps corresponding to said sequence;
  - (c) filtering a second set of taps corresponding to said sequence;
  - (d) filtering a predetermined number of taps from steps (b) and (c); and
  - (e) recognizing said sequence based on an output of step (d).
2. The method of claim 1, further comprising:  
determining a magnitude of an output of filtering step (b);  
determining a magnitude of an output of filtering step (c);  
determining a magnitude of an output of filtering step (d); and  
adding the magnitudes of the outputs of said filtering steps (b), (c), and (d).
3. The method of claim 2, further comprising:  
performing peak detection on the added magnitudes; and  
acquiring a secondary synchronization code based on said peak detection.
4. The method of claim 1, wherein said first set of taps and said second set of taps include a same number of taps.

5. The method of claim 4, wherein said first set of taps corresponds to a first half of said taps corresponding to said sequence and said second set of taps corresponds to a second half of said taps corresponding to said sequence.

6. The method of claim 4, wherein said predetermined number of taps equal said same number of taps.

7. The method of claim 1, wherein said first set of taps and said second set of taps include a different number of taps.

8. The method of claim 1, wherein said predetermined number of taps include a same number of taps derived from steps (b) and (c).

9. The method of claim 1, wherein said sequence is a Hadamard sequence.

10. The method of claim 1, wherein recognizing step (e) includes:  
comparing at least a portion of said predetermined number of taps from steps (b) and (c) to a reference set of sequences; and  
recognizing said sequence based on said comparing step.

11. The method of claim 1, wherein said spread-spectrum signal is a CDMA signal.

12. A system for acquiring a transmitted spread-spectrum signal, comprising:
  - a circuit which locates a sequence within a secondary synchronization sub-channel of a transmitted spread-spectrum signal;
  - a first matched filter which filters a first set of taps corresponding to said sequence;
  - a second matched filter which filters a second set of taps corresponding to said sequence; and
  - a third matched filter which filters a predetermined number of taps overlapping taps by said first matched filter and said second matched filter, wherein an output of said third matched filter provides a basis for determining an identity of said sequence.
13. The system of claim 12, further comprising:
  - a plurality of magnitude determining circuits for respectively determining magnitudes of outputs of said first, second, and third matched filters; and
  - a summation circuit for adding said magnitudes.
14. The system of claim 13, further comprising:
  - a peak detection circuit for processing an output of said summation circuit,
  - wherein peak detection information derived from said peak detection circuit provides a basis for determining a secondary synchronization code of said transmitted spread-spectrum signal.
15. The system of claim 12, wherein said first set of taps and said second set of taps include a same number of taps.

16. The system of claim 15, wherein said first set of taps corresponds to a first half of said taps corresponding to said sequence and said second set of taps corresponds to a second half of said taps corresponding to said sequence.

17. The system of claim 15, wherein said predetermined number of taps equal said same number of taps.

18. The system of claim 12, wherein said first set of taps and said second set of taps include a different number of taps.

19. The system of claim 12, wherein said predetermined number of taps includes a same number of taps from said first matched filter as from said second matched filter.

20. The system of claim 12, wherein said sequence is a Hadamard sequence.

21. The system of claim 12, further comprising:  
a processor which compares at least a portion of said predetermined number of filtered taps to a reference set of sequences, and which recognizes said sequence based on said comparison.

22. The system of claim 12, wherein said spread-spectrum signal is a CDMA signal.

23. A matched filter for acquiring a transmitted spread-spectrum signal, said signal including a sequence located within a secondary synchronization sub-channel of said signal, said filter comprising:

a first filter portion which filters a first set of taps corresponding to said sequence;

a second filter portion which filters a second set of taps corresponding to said sequence; and

a third filter portion which filters a predetermined number of taps overlapping taps by said first filter portion and said second filter portion, wherein an output of said third filter portion provides a basis for determining an identity of said sequence.